

# III. Progress at Contaminated Sites



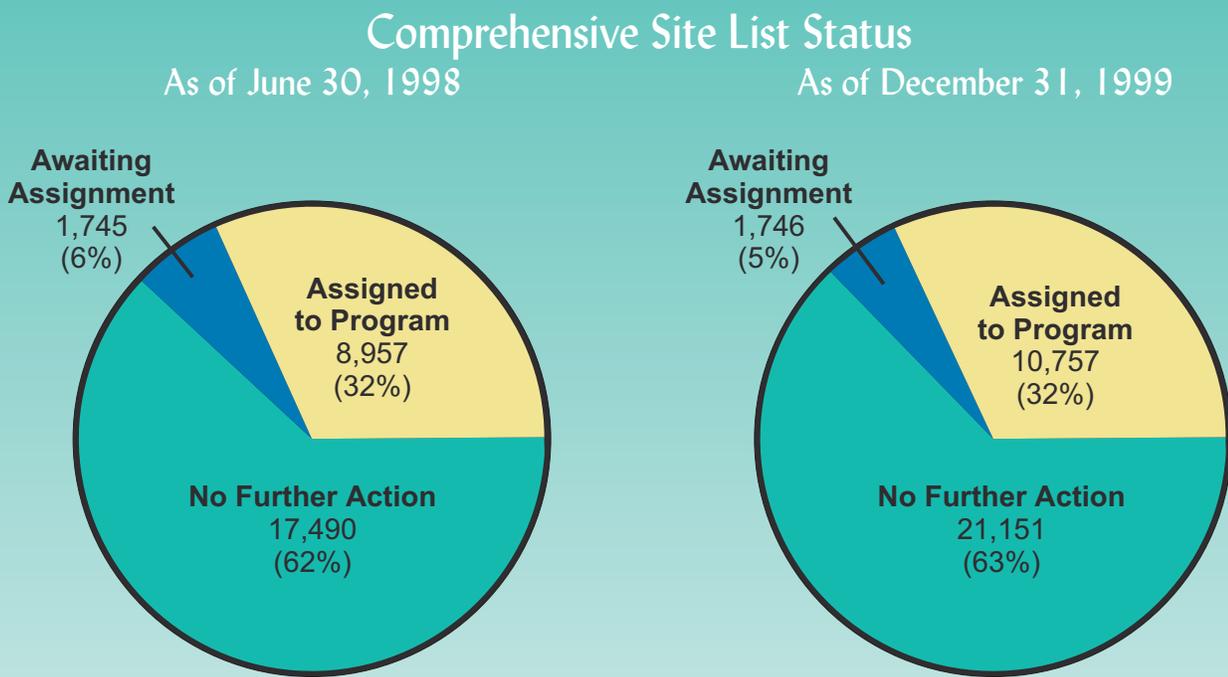
The Site Remediation Program maintains a Comprehensive Site List (CSL) database that contains more than 39,000 sites in New Jersey as of December 31, 1999. For general reporting purposes, the Site Remediation Program identifies sites on the CSL from three primary categories: No Further Action (NFA) sites, Assigned to Program sites and Awaiting Assignment sites that total 33,654. Figure 4 compares the CSL status as of December 31, 1999 (the latest data available for reporting purposes) with the status as of June 30, 1998.

The Site Remediation Program issued 2,341 NFA designations during State Fiscal Year 1999 and 1,320 in the first six months of State Fiscal Year 2000. NFA sites do not require remedial activities to be conducted at this time and now total 21,151 sites representing 63 percent of the CSL universe. A NFA designation is given when all remedial activities that were necessary to address any environmental concerns have been completed. A NFA

designation also may be given where it is determined that regulatory requirements have been satisfied, including sites where no contamination was found above applicable criteria. As of December 31, 1999, the Site Remediation Program was tracking 320 sites with No Further Action designations that also have deed notices documenting the required engineering and institutional controls which are part of the sites' permanent remedies.

Assigned to Program sites have remedial measures underway that may include a preliminary assessment, investigation, cleanup work or long-term operations and maintenance actions. The majority of these 10,757 sites (as of December 31, 1999) are known contaminated sites, while a small percentage are sites that have suspected contamination or are under review to ensure no contamination is present to address liability concerns. Assigned to Program sites represent 32 percent of the CSL universe.

Figure 4



Sites Awaiting Assignment are known contaminated sites that require further remedial activities and will be assigned an active status when a private party agrees to conduct any required work or if the site becomes a priority for publicly funded action by the Department. This category of 1,746 sites (as of December 31, 1999) represents the smallest component of the CSL universe, about five percent.

The known contaminated site universe is comprised of a majority of the Assigned to Program sites and all Awaiting Assignment sites. This list will be made available again in September 2000.

## Superfund site remedial actions

Sites administered under the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) are commonly known as Superfund sites. Investigation and cleanup work at these sites is funded by a responsible party(ies) or by a combination of federal and state funding when the responsible party cannot be identified or is unwilling or unable to conduct the cleanup. When public funds are used, the proportion of federal to state funding varies depending on the type of site, with the majority of funds usually supplied by the federal government. The Department works with the U.S. Environmental Protection Agency (USEPA) to implement remedial actions at New Jersey's Superfund sites.

During the past decade, the Department and the USEPA have made significant progress in cleaning up Superfund sites located in New Jersey. More than 60

percent of environmental concerns at these sites have been addressed.

As of December 31, 1999, a total of 130 sites in New Jersey had been placed on the NPL for Superfund cleanup since the inception of the Superfund Program. Sixteen of the 130 sites have been removed from the Superfund list, leaving 114 active NPL sites.

For the purposes of evaluating the progress of cleanup activities in the Superfund Program, it is important to understand how sites move through the remedial process. A site is usually divided into subsites or operable units, allowing for variation in the speed or extent to which environmental concerns at a site are addressed. This approach allows subsites with immediate environmental concerns to be dealt with first, such as those requiring removal of surface waste or contaminated waste materials to prevent the threat of direct contact or off-site migration. The remaining subsites that move through the remedial process usually involve more complex environmental concerns requiring studies and cleanup actions such as treatment of contaminated soil or ground water. The original 130 Superfund sites have been divided into 446 subsites as of December 31, 1999. Of this number, 275 subsites, or 62 percent of the total, no longer pose a threat to public health or the environment. They either have been completely remediated or are being addressed through long-term operation, maintenance and monitoring. Of the remaining 171 subsites, some type of remedial work is underway at 166.

Figure 5, entitled New Jersey's Superfund Subsite Status, compares remedial activities at New Jersey's Superfund subsites as of the end of June 1998 and the end of December 1999. Fifteen additional

subsites were given a NFA designation and eight other subsites moved to a maintenance-only status after all investigation and cleanup activities were completed. Most subsites routinely require a series of remedial projects, as described below. The project types are Remedial Investigation and Feasibility Study (RI/FS or Study), Remedial Design (RD), Remedial Action (RA) and Operation and Maintenance (O&M).

The status of the 446 Superfund subsites as of December 31, 1999 shows 78 RI/FS subsites; 46 RD subsites; 40 RA subsites; 81 O&M subsites; 194 NFA subsites; and, seven subsites where no work has been initiated.

*Superfund project definitions*

**A Remedial Investigation and Feasibility Study (RI/FS)** is an integral part of the remedial process. It is essential to determine the extent and nature of contamination and to identify acceptable

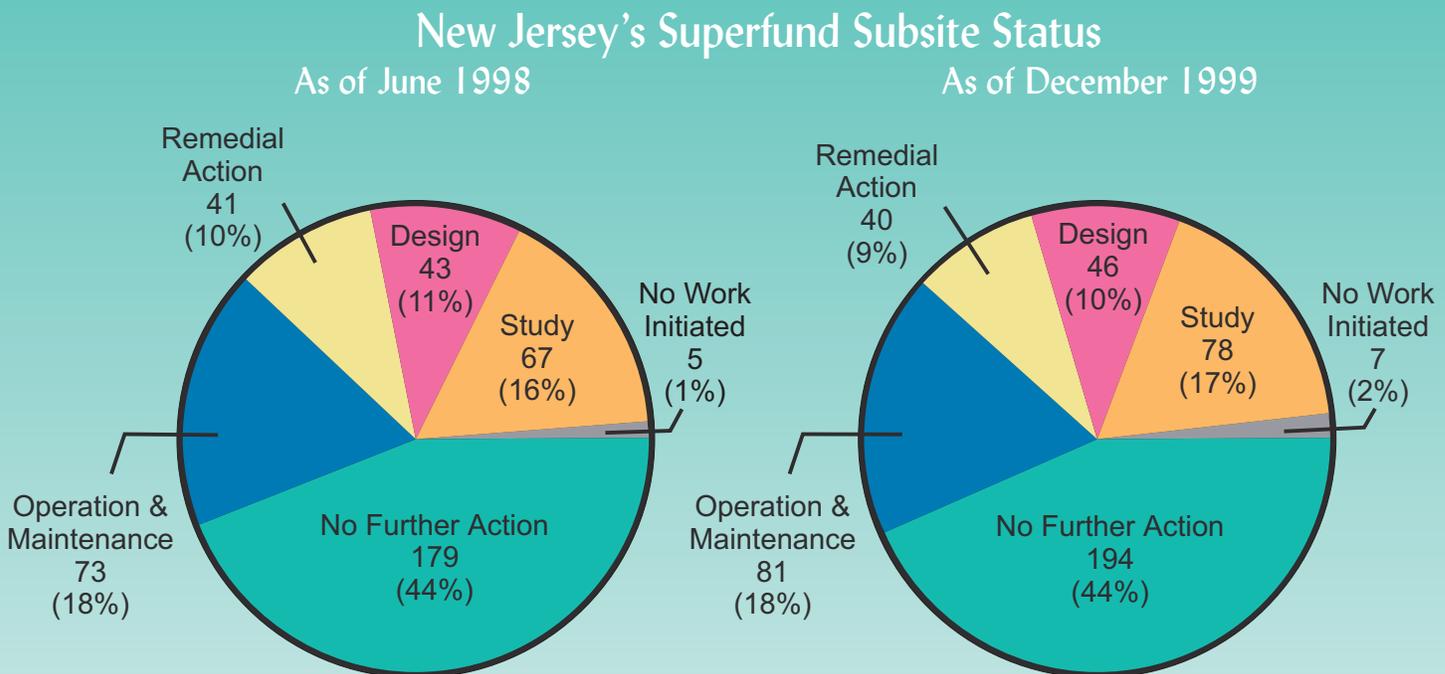
alternatives for cleanup. Substantial effort is expended in characterizing the environmental problems generated by the site.

The **Remedial Design (RD)** develops plans and specifications to address the environmental concern(s) and achieve the most effective remedial action.

**Remedial Action (RA)** implements the design and includes removal of contaminated soil, capping, treatment of ground water or drinking water, fencing and other actions. This type of project entails removal or stabilization of contaminated material. It is the most visible indicator of cleanup progress.

**Operation & Maintenance (O&M)** occurs once construction work required is completed or if monitoring only is necessary. Operation and maintenance activities are often necessary to achieve cleanup standards for a subsite and/or to ensure a successful remediation of a site.

Figure 5



### SFY99-SFY00 NPL site project activities

During SFY99, 28 new remedial projects were initiated at Superfund sites, 22 funded by responsible parties while the other six were started with public monies. Also, in the first six months of SFY00, 23 new remedial projects began, 12 funded by responsible parties while the other 11 were started with public monies.

Also at Superfund sites in SFY99, 27 remedial projects were completed. Eighteen were funded by responsible parties while nine were paid for with public funds. In the first six months of SFY00, 13 remedial projects were completed, five funded by responsible parties and eight with public funds.

### Remedial activities conducted under state authority

#### Cleanup activities at Non-NPL complex sites

Complex sites are defined as sites or subsites that require a full scale study, formal remedial action selection report or workplan and cleanup response to an unknown and/or uncontrolled source or release of hazardous substances. These actions can be funded by responsible parties or with public monies. Progress at publicly funded subsites during SFY99 included the start of the following projects: 18 Remedial Investigation and Remedial Action Selection reports (RI/RAS); one Remedial Design (RD); 18 Remedial Actions (RA); and three Operation and Maintenance (O&M) actions. In the first half of SFY00, project starts at publicly funded sites included: 11 RI/RAS reports, two RDs, eight RAs, and two O&M starts.

Furthermore, 11 publicly funded RA projects were completed in SFY99 and four in the first half of SFY00, along with 10 RI/RAS reports in SFY99 and six in the first half of SFY00 and two RD projects in SFY99.

In terms of privately funded actions in SFY99, 56 Remedial Action Workplans were approved, which mark the beginning of actual cleanup work at these responsible party sites, along with 24 in the first half of SFY00. Also, 33 privately funded

Remedial Action Reports, which represent the completion of responsible party clean-ups, were approved during SFY99 in addition to 18 in the first half of SFY00.

As of December 31, 1999, 179 publicly funded projects were underway, some of which began in previous years. In addition, 223 privately funded non-NPL complex projects also were underway at that time.

Funding Source	SFY99	SFY00*
Public Funds	6	11
Private Funds	22	12
<b>Totals</b>	<b>28</b>	<b>23</b>

Funding Source	SFY99	SFY00*
Public Funds	9	8
Private Funds	18	5
<b>Totals</b>	<b>27</b>	<b>13</b>

Funding Source	99 Started	00* Started	99 Completed	00* Completed
Public Funds	18	8	11	4
Private Funds	56	24	33	18
<b>Totals</b>	<b>74</b>	<b>32</b>	<b>44</b>	<b>22</b>

\*First six months of State Fiscal Year 2000.



### *Hurricane Floyd Cleanup*

*Department personnel worked with local, county, federal and other state officials to assist residents and businesses impacted by Hurricane Floyd in September 1999. Emergency responders recovered 561 drums containing various substances, 670 compressed natural gas cylinders and 39 oil tanks ranging in size from 250 to 1,000 gallons. These items were collected at a temporary command post in Piscataway shown in the upper right photograph. In addition, other bottles and containers filled with pesticides and other hazardous substances were packed into 502 55-gallon drums for proper disposal. The 500-year flood resulted in 930 notifications to the Site Remediation Program's emergency response communications center to report oiled properties, permit exceedances by operating businesses and other environmental problems. In the upper left photograph, a Department worker takes inventory of debris along Peter's Brook in Somerville. After the Raritan River's water level receded, a drum was found along its banks suspended 25 feet off the ground in a tree limb, as shown in the lower right photograph. NJDEP Commissioner Robert C. Shinn, Jr. presented more than 80 Department employees with a letter of appreciation for their work during the State of Emergency. NJDEP Emergency Response Specialist Chris Hagerman, left, is shown receiving his award from the commissioner at a ceremony held in Trenton in December 1999.*

### Focused Cleanup Activities

A focused cleanup is defined as a remedial measure, usually with no formal design phase, that consists of a focused response to a known source or release. The Site Remediation Program's Bureau of Field Operations, located in two regional field offices, oversees a large number of focused cleanups ensuring compliance with environmental laws and regulations. In SFY99, some 1,687 of these cleanups were guided to completion and an additional 883 were completed in the first six months of SFY00. There were 3,573 cleanups underway at the end of SFY99 and 3,871 at the end of the first six months of SFY00.

### Industrial Site Recovery Act Cases

The Site Remediation Program's ISRA group oversaw completion of 38 cleanups during SFY99 and 29 in the first six months of SFY00. An additional 744 site cleanup actions were underway at the end of SFY99 and 761 after the first six months of SFY00 with NJDEP oversight. In addition, 353 No Further Action determinations were issued in SFY99 based on the results of site investigations or cleanup actions performed satisfactorily prior to a property transfer. In the first six months of SFY00, 237 of these No Further Actions were issued to responsible parties that performed investigation or cleanup work following Department requirements, and after submitting final remedial reports for approval.

Type	SFY99	SFY00*
Cleanups Underway	3,573	3,871
Cleanups Completed	1,687	883

Type	SFY99	SFY00*
Cleanups Underway	744	761
Cleanups Completed	38	29
NFA Determinations	353	237

Type	SFY99	SFY00*
Removals with Discharge	457	281
Removals without Discharge	503	342
<b>Total</b>	<b>960</b>	<b>623</b>

### Underground Storage Tanks

Progress continued in the remediation of underground storage tank sites in SFY99 with 960 cleanups or closures completed. These actions involve three tanks per site on average. Of the 960 tank site actions, 457 involved discharges with soil and/or ground water investigations. The remaining 503 removals were at sites where tank systems did not cause a contamination problem. In the first six months of SFY00, 623 tanks sites were addressed through cleanup or closure. Cleanup actions to address soil and/or ground water contamination were required at 281 sites, while an additional 342 sites were closed without a discharge problem.

### Emergency Response and Environmental Communications

The Site Remediation Program responded to 839 emergencies during SFY99 and 418 in the first six

\*First six months of State Fiscal Year 2000.

months of SFY00. The Department “Hot Line” for reporting environmental concerns or discharge notifications answered 73,932 calls in SFY99 and 41,092 in the first six months of SFY00.

*Memorandums of Agreement and Administrative Consent Orders*

When the Site Remediation Program knows the individual or parties responsible

Emergency Response and DEP Communication Center		
Type	SFY99	SFY00*
Emergency Response	839	418
“Hotline” Calls Received	73,932	41,092

for contamination at a site, a cleanup agreement is discussed. Once an agreement has been reached, an oversight document is issued and signed by both parties. Document types vary depending on the circumstances.

An Administrative Consent Order (ACO) is the standard control document issued for priority sites. A priority site is one where the Department will use public funds to conduct remedial activities unless a private party agrees to perform the cleanup. If public funds are used, known responsible parties unwilling to do the cleanup themselves will be directed to reimburse the state and may be required

to pay three times the cost of the cleanup.

A Remediation Agreement is a contract between an ISRA responsible party and the Department. A Remediation Agreement allows the ISRA triggering event, such as a sale, transfer and/or closing of an industrial establishment, to proceed prior to the actual cleanup.

A Memorandum of Agreement (MOA) is executed when a responsible party, a land developer, or other cooperative party agrees to investigate and/or clean up a non-priority site or any portion thereof in accordance with the Voluntary Cleanup Program.

There were eight ACOs signed by responsible parties in SFY99 at priority sites with a total of \$4.3 million in estimated remedial costs; seven ACOs were signed in the first six months of SFY00 with an estimated cost of \$2 million. Also, 97 Remediation Agreements were executed by private parties during SFY99 with a total of \$29.8 million in estimated remedial costs. In the first six months of SFY00, 65 Remediation Agreements were signed with \$67.7 million in estimated remedial costs. The number of MOAs signed by private parties and local governments during SFY99 was

Oversight Documents Executed		
Type	SFY99	SFY00*
Memorandums of Agreement	2,341	1,151
Administrative Consent Orders	8	7
Remediation Agreements	97	65

Spill Fund Claims		
Type	SFY99	SFY00*
Claims Payments	222	261
Denials/Administrative Closures	19	7

\*First six months of State Fiscal Year 2000.

2,341 and in the first six months of SFY00 and additional 1,151 were signed. The large number of MOAs approved for each of the past several years reflects the popularity of the Voluntary Cleanup Program.

It is important to note that there is not a one-to-one relationship between documents and sites or cleanups. One ACO could cover one or many sites and, conversely, an MOA could cover one site or a part of an overall site, such as only cleaning up an area where a spill occurred at the location. Also, homeowners cleaning up leaking underground storage tank sites containing fuel oil are covered under MOAs each year.

### *Environmental Claims*

The Environmental Claims Administration (ECA) processes claims under the New Jersey Spill Compensation Fund (Spill Fund). The Spill Fund provides compensation to individuals and businesses that have suffered direct or indirect damage resulting from a discharge of hazardous materials such as petroleum products.

In SFY99, ECA paid an estimated \$3.6 million for 222 claims as compensation for damages caused by discharges of hazardous substances. Also, there were 10 administrative closures and nine claims denied during SFY99. In the first six months of SFY00, \$736,000 for 261 claims was paid to compensate parties incurring damages. Three closures and four denials also were issued in the first six months of SFY00.

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## Mission Statement

**Vision:** The Department of Environmental Protection is committed to providing a high quality of life for the residents of New Jersey.

**Mission:** To assist the residents of New Jersey in preserving, sustaining, protecting and enhancing the environment to ensure the integration of high environmental quality, public health and economic vitality. We will accomplish our mission in partnership with the general public, business, the environmental community and all levels of government by:

- Developing and integrating an environmental master plan to assist the Department and our partners in decision-making through increased availability of resource data on the Geographic Information System.
- Defining and publishing reasonable, clear and predictable scientifically-based standards.
- Achieving the Department's goals in a manner that encourages compliance and innovation.
- Employing a decision-making process that is open, comprehensive, timely, predictable and efficient.
- Providing residents and visitors with affordable access to safe and clean open space, historic and natural resources.
- Assuring that pollution is prevented in the most efficient and practical way possible.
- Assuring that the best technology is planned and applied to achieve long-term goals.
- Assuring that non-treatable wastes are isolated, managed and controlled.
- Enhancing environmental awareness and stewardship through education and communication.
- Fostering a work environment that attracts and retains dedicated and talented people.
- Committing to an ongoing evaluation of the Department's progress toward achieving our mission.

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